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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,553

09/26/2005

Mamoru Takimura

Q90237

1936

23373 7590 07/24/2008  
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EXAMINER

FISCHER, JUSTIN R

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

07/24/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,553	<b>Applicant(s)</b> TAKIMURA, MAMORU	
	<b>Examiner</b> Justin R. Fischer	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 3 is/are allowed.
- 6) ☒ Claim(s) 1 and 4-7 is/are rejected.
- 7) ☐ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 17, 2008 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westermann (US 6,807,994, newly cited) and further in view of Lommerts (5,194,210, of record).

Westermann teaches a rubber composition having a modulus (at room temperature) of 5.3 MPa and a rebound resilience of 64% (at room temperature) (Sample E in Table 2). The reference further teaches that the inventive rubber composition can be used as a ply coat or coating/topping rubber (Column 13, Lines 45-49). Thus, Westermann teaches a tire ply component in which the coating/topping rubber satisfies the claimed modulus and rebound resilience. It is further noted that one

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of ordinary skill in the art at the time of the invention would have recognized the language “ply” as being directed to carcass plies and belt plies as they represent two of the fundamental “ply” components in modern tire constructions. The reference, however, is silent as to the reinforcing material used to form the tire ply component, it being recognized that tire ply components comprise a topping/coating rubber and a reinforcing material.

As to the reinforcing material, one of ordinary skill in the art at the time of the invention would have found it obvious to use the rubber composition of Westermann with any of the well known and conventional ply reinforcing materials, including polyketone fiber cords, as shown for example by Lommerts. In particular, it is well known to use polyketone fiber cords in a wide variety of tire components, including carcass plies and belt plies, since they provide a high degree of tensile strength and demonstrate high creep resistance, as shown for example by Lommerts (Column 5, Lines 30-50). Lommerts further teaches the specific use of said polyketone fibers instead of conventional tire reinforcing elements, such as rayon, nylon, polyester, and aramid. As such, one of ordinary skill in the art at the time of the invention would have found it obvious to form the ply component of Westermann with polyketone fiber cords for the reasons detailed above.

As to claim 4, the polyketone described by Lommerts is an alternating polymer of carbon monoxide and ethylene (Column 2, Lines 5-10).

Regarding claim 7, Westermann suggests the manufacture of a passenger car tire (Column 13, lines 50-56).

***Allowable Subject Matter***

4. Claims 2 and 3 are allowed.
5. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments filed July 17, 2008 have been fully considered but they are not persuasive.

Applicant argues that Lommerts does not disclose or suggest that it is necessary to use the claimed coating rubber when using a polyketone fiber cord. Applicant further contends that Table 2 of Westermann merely discloses a rubber composition having the claimed properties and does not disclose the use of a polyketone fiber cord.

As detailed in the rejection above, Westermann is directed to a ply rubber composition having the claimed modulus and rebound resilience (Sample E). In this instance, though, Westermann is silent as to the makeup of the reinforcing material in the tire ply component. Given the general disclosure of Westermann, one of ordinary skill in the art at the time of the invention would have readily appreciated the use of any known tire reinforcing material commonly used in the manufacture of tire ply components, such as polyketone fibers. Lommerts recognizes the known use of such fibers in tire ply components since they provide high tensile strength and creep resistance and more particularly, the reference teaches the specific use of such fibers in place of more conventional reinforcing elements such as rayon, nylon, polyester, and

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aramid. Thus, one of ordinary skill in the art at the time of the invention would have been amply motivated to use polyketone fiber cords to form the tire ply component of Westermann.

Lastly, it is agreed that Westermann is not directed to a tire rubber composition having a rubber component consisting of natural rubber. As such, the respective claims are not included in the art rejections above.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin Fischer  
/Justin R Fischer/  
Primary Examiner, Art Unit 1791  
July 21, 2008